

Notice of Allowability

Application No.

10/536,751

Examiner

Phuong Huynh

Applicant(s)

DEVILLE, JEAN-LUC

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to February 22, 2007.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-11 are allowed.

The following is an examiner's statement of reasons for allowance:

Noto et al. (hereinafter "Noto") (US Patent No. 4,753,975) discloses an electro-motive power steering system including a torque sensor for detecting a steering force exerted to a steering wheel, a motor controlled in accordance with the output of the torque sensor, a steering angle sensor for detecting a steering angle, acceleration/deceleration deciding circuit for deciding based on the outputs of the torque sensor, and the steering angle sensor whether the steering of the steering wheel is accelerated or decelerated, and a function generator for generating a function of either one of acceleration or deceleration in accordance with the result of the decision by the acceleration/deceleration deciding circuit, wherein a steering assisting force corresponding to the acceleration or deceleration of the steering of the steering wheel is applied to the steering wheel [see Noto: Abstract; col. 3, line 66-col. 4, line18; col. 4, lines 31-35, and lines 59-67].

Chen et al. (hereinafter "Chen") (US Patent No. 6,876,911) discloses a control unit for an electric power steering apparatus can obtain continuous, stable and comfortable feeling of steering, for improved steering, based on a provision of a continuous hysteresis characteristic using a low-cost structure on software. For this purpose, the control unit for an electric power steering apparatus controls a motor for giving steering assist force to a steering mechanism based on a current control value calculated from a steering assist command value calculated based on the steering torque generated in the steering shaft, and a current value of the motor. The control unit includes an assist calculating unit that differentiates a signal of

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the steering torque, adds the differentiated value to the steering assist command value, and continuously changes the differential gain according to the steering torque and the size of the vehicle speed [see Chen: Abstract; col. 5, lines 1-16; and col.5, line 46-col. 6, line 5]

Regarding claim 1, the combination as claimed wherein "comparing the first and second angles measured, taking into account rigidity of the steering column between locations at which the first and second angles are measured," or "computing the load on the steering wheel by comparison of positions of the first and second sensors, and computing variation of the load on the steering with respect to speeds of rotation of the first and second sensors, PID filtering of the first and second angles measured to obtain torque information for computation of the set point of the assistance torque to be applied to the steering column by the assistance motor."

Claims 2-11 depend from allowed claim 1 and therefore are also allowed.

Conclusion

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh whose telephone number is 571-272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Huynh
Examiner
Art Unit 2857

PH
March 15, 2007


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER